Habib Iqbal* & U. C. Pandey*: *Spirogyra dhopaea* a new species from Bareilly (U.P.) India

H. イクバル*・U. C. パンデイ*: アオミドロ属の一新種

The genus *Spirogyra* Link is known to have the largest number of species in the Order Zygnematales. Out of more than 300 recorded species of the genus from the World, about 125 species have been reported so far from India (Singh 1938, Rao 1937, Misra 1937, Iyengar 1963, Sengar 1986, Iqbal et al. 1988). While studying the algal flora of Bareilly, the authors came across a new species of *Spirogyra*, collected from a pond at a place Dhopa, near Bareilly (U.P.) India.

Spirogyra dhopaea Iqbal et Pandey, sp. nov. [Zygnemataceae] (Figs. 1-3)

Cellulae 35-38 μm in diametro, 30-45 μm longae, cylindricae vel aeque latae, chloroplastus singulus, spirae 1-3; cellulae bullatae depresso-sphaericae, 55-68 μm in diametro, 45-50 μm longae; conjugatio scalariformis, tubi conjunctivi formati per uterque gametangia; zygosporae sphaericae, raro ovoideae, 20-35 μm in diametro, 25-35 μm longae, ad maturi tatem rubro-brunneus.

Habitat: In a pond at a place Dhopa near Bareilly (U.P.).

Type specimen: January 18, 1987 (C-CHL-14) The type specimen has been deposited in Mitra Phycology Lab., Department of Botany, Bareilly College, Bareilly (U.P.) India.

The present species is unique in several features. It closely resembles *Spirogyra varians* (Hassall) Kuetz. in the nature of cylindrical fertile cells and bullate-shaped cells (Randhawa 1959, p. 297, fig. 257) but differs in having spherical to slightly ovoid zygospores with median spore wall which is smooth and reddish brown in colour at maturity. In *S. varians* the zygospores are ellipsoidal, to ovoid or rarely globose with median spore wall which is yellow at maturity. *Spirogyra dhopaea* is also related to *S. papulata* Jao (Randhawa 1959, p. 309, figs. 276 a-b) in the size and shape of zygospores which are subspherical and bullate-shaped cells but differs from it in the nature of zygospore wall and its colour. In *S. populata* the median spore wall is ornamented and

---

* Mitra Phycology Lab., Department of Botany, Bareilly College, Bareilly-243005, India.

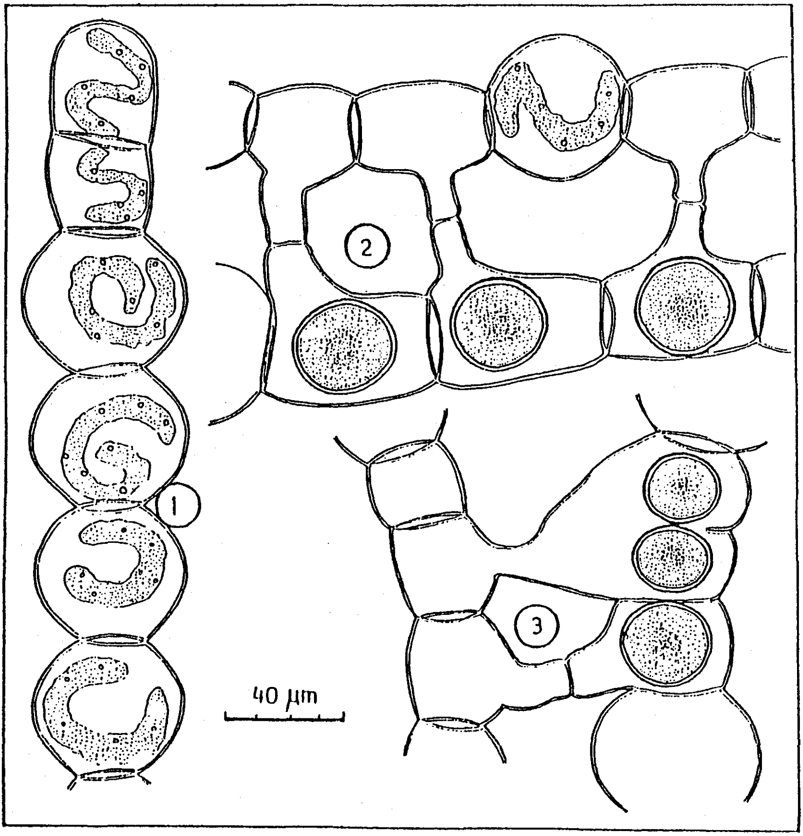

Fig. 1. *Spirogyra dhopaea* sp. nov. 1. Bullate-shaped cells in a chain in young filament. 2. Showing scalariform conjugation, gametangia with mature zygospores and a bullate shaped cell in between the fertile cells. 3. A gametangium containing a zygospore and two gametangia containing one azygospore in each.

golden yellow in colour at maturity. When compared with other species in the family Zygnemataceae this new species was found to be quite different in zygospore morphology and hence it is considered as a new species.

The species is named after the place of its collection for the first time from India.

The authors wish to express their hearty appreciation to Dr. U.K. Chaturvedi, Botany Department, Bareilly College, Bareilly for critically examine the manuscript and also for his valuable suggestions. Thanks are also due to Department of Science & Technology, New Delhi, India for financial assistance and to Dr. N.C. Majumdar of Botanical Survey of India, Calcutta for rendering the latin diagnosis.

References

Iqbal Habib, H.M. Shukla & U.C. Pandey 1988. Zygnemataceae of Nakatia river, Bareilly (U.P.), India. Ad. Plant. Sci. **2**: 342–353. Iyengar, M.O.P. 1963. Latin diagnosis of new taxa of Zygnematales. Phykos **2**: 54–62. Misra, J.N. 1937. Zygnemataceae of Kashmir I. Proc. Indian Acad. Sci. **5**: 110–117. Randhawa, M.S. 1959. Zygnemataceae. I.C.A.R., New Delhi. 478 pp. Rao, C.B. 1937. The Zygnemoideae of the United Provinces, India I. J. Indian Bot. Soc. **16**: 269–288. Sengar, M. 1986. Investigations on Morphology and life history of certain interesting forms of Algae. Dr. Phil. Thesis, Allahabad University, Allahabad. Singh, R.N. 1938. The Zygnemoideae of the United Provinces, India II. J. Indian Bot. Soc. **17**: 369–384.

* * * *

インド Bareilly 付近の Dhopa より緑藻アオミドロ属の1新種 *Spirogyra dhopaea* Iqbal et Pandey を記載した。この種は水泡状の細胞，円筒状の成熟細胞，表面が円滑で成熟すると赤褐色になる球形〜卵形の接合胞子をもつことで他の種から区別できる。

□井口樹生：**古典の中の植物誌**　261 pp. 1990. 三省堂，東京. ¥1,600. 昭和45〜47年に雑誌に連載されたものを48年に「風の木 水の花」として少数出版し，今回書名を改めて再刊したものだそうである。「瞻（まも）りの花」「手草 採物」「はらえぐさ」など12章からなる。我が国の古典文学の中に登場する草木に民俗学の側面から光をあて，古代の人とある植物との特別なかかわりと意味を浮かび上がらせてくれる。現代の私達の中にいつのまにか芽生えてしまっていた，ある植物についてのあの共通の感覚の源をも解き明かしてくれるところもある。とかく植物学者の側からの語源の研究などに見られるような，「言えば言えるものだ」という感じがしない。せっかくの再刊なので，各方面の引用文献が加えられていたらと願うのは，本書の雰囲気をこわすものであろうか。

（三浦宏一郎）